

REMARKS

Claims 1-19 are pending in the application. These claims were rejected in the parent application. The rejections are addressed below. The above amendments to the Specification merely rewrite citations to websites to be expressed in suitable form. No new matter is introduced.

Rejection Under 35 U.S.C. 112, Second Paragraph

Claim 4 has been rejected under 35 § U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The Examiner stated that it was not clear what was meant by the “for monitoring for the subject event identified in response to processor waiting” limitation of claim 4. Claim 4 has now been amended and is believed to satisfy the requisites of § 112 second paragraph.

Rejection Under 35 U.S.C. 102(b)

Claims 1-19 (numbered as Claims 1-12, 16-19, and 22-24 in the parent application) have been rejected under 35 U.S.C. 102(b) as being anticipated by Wilson et al., U.S. Patent No. 4,710,883. Applicants respond as follows.

The present application is directed to resolving the problem of spin-lock in an SMT architecture by halting, or “quiescing”, spin-locking threads while they are waiting for some event, i.e., the availability of a lock. A particular stream of program instructions may be halted while the program is waiting for one or more events to occur in a simultaneous multithreaded processor or multiprocessor environment. An event monitor monitors for occurrence of such an event by, for example, observing a memory bus. Each stream of instructions preferably has its own associated event monitor.

Wilson et al. teaches “an electronic postage meter that includes a microcomputer with an external timer for providing a periodic interrupt. At each interrupt, a monitor routine examines the sensors and switches for changes in status and a monitor word is formed in correspondence with the detected status.” (Abstract, lines 1-6.) “For resuming a task after an event has occurred, the routine returns to the suspended task when the MONITOR routine establishes that an event

occurred or a time period expired by clearing the “wait” flag...” (Column 6, lines 3-6).

Independent Claim 1 of the present application is directed to a method for temporarily halting executions of a given stream of program instructions while a processor is waiting for a subject event to occur. The method includes, among other steps, the step of arming an event monitor associated with the given stream of program instructions for monitoring occurrence of events. Wilson et al. does not teach or suggest the event monitor that is associated with a given stream of program instructions. On the contrary, the postage meter of Wilson et al. includes one monitor routine that monitors all of the running tasks at periodic intervals. Each thread having an associated event monitor that is armed to monitor for particular events as in the present invention is patently distinct from a single monitor routine that monitors all the tasks running on a microprocessor as in the cited art. Therefore, Wilson et al. does not anticipate Claim 1 and the rejection is believed to be overcome.


Independent Claims 2-4 each recite the event monitor that is associated with a particular stream of instructions and, therefore, are not anticipated by Wilson et al. for at least the same reasons as independent Claim 1 above. Dependent claims 5-19 depend from independent Claims 1, 2 and 4 and are not anticipated by Wilson et al. for at least the same reasons as above. All claims are believed to be in condition for allowance.

CONCLUSION

In view of the above amendments and remarks, it is believed that all claims (Claims 1-19) are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

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Dated: 6/7/03